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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVE PORTER

Appeal 2008-0386
Application 10/634,110
Technology Center 2600

Decided: June 5, 2008

Before KENNETH W. HAIRSTON, JOHN A. JEFFERY,
and KEVIN F. TURNER, *Administrative Patent Judges*.

JEFFERY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134 from the Examiner's rejection of claims 1-22. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

STATEMENT OF THE CASE

Appellant invented a security system, sensor and method for monitoring the conditions within a storage container. Specifically, the system, sensor and method detect a breach of the storage container based on changes in environmental conditions within the storage container. These conditions include changes in light, heat, motion, pressure, radiation, and sound. The device incorporates visual indicators to display the current state of the storage container.¹ Claim 1 is illustrative:

1. A security system for monitoring the interior of an enclosed container comprising:

 a housing having first and second ends carried by said container, said first end being disposed within said container, and said second end being disposed outside said container;

 a sensor carried within said first end of said housing for monitoring conditions within said container and signaling changes in said conditions;

 an external status indicator carried within said second end of said housing for signaling current security status of the container;

 said indicator having a first condition visually signaling a secured status within said container and a second condition visually signaling detection of a breach;

 a central processing unit carried within said housing in communication with said sensor and said status indicator said central processing unit receiving information monitored by said sensor comparing said information against a set of established parameters and signaling said status indicator detection of a breach of said parameters;

¹ See generally Spec. 1:9-12, 3:7-14 and 7:7-10.

a remote access device operatively associated with said sensor for deactivating and reactivating said sensor;

whereby said security system provides a first visual signal on the exterior of the container when the conditions within the container are within said parameters and a second visual signal when said parameters have been breached indicating tampering or unauthorized access into said container.

The Examiner relies on the following prior art references to show unpatentability:

Alton US 3,594,752 Jul. 20, 1971

Mayor US 6,737,962 B2 May 18, 2004
(filed Nov. 2, 2001)

The Examiner's rejection is:

Claims 1-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mayor and Alton.

Rather than repeat the arguments of Appellant or the Examiner, we refer to the Briefs² and the Answer³ for their respective details. In this decision, we have considered only those arguments actually made by Appellant. Arguments which Appellant could have made but did not make in the Brief have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

² We refer to the Appeal Brief filed February 9, 2006, and the Supplemental Appeal Brief filed June 25, 2007, throughout this opinion.

³ We refer to the Examiner's Answer mailed February 15, 2007, throughout this opinion.

OPINION

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). In so doing, the Examiner must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966).

Discussing the question of obviousness of a patent that claims a combination of known elements, the U.S. Supreme Court explains:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. *Sakraida [v. AG Pro, Inc.]*, 425 U.S. 273 (1976) and *Anderson's-Black Rock[, Inc. v. Pavement Salvage Co.]*, 396 U.S. 57 (1969) are illustrative—a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.

KSR Int'l v. Teleflex, Inc., 127 S. Ct. 1727, 1740 (2007). If the claimed subject matter cannot be fairly characterized as involving the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement, a holding of obviousness can be based on a showing that “there was an apparent reason to combine the known elements in the fashion claimed.” *Id.* at 1741. Such a showing requires,

‘some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness’ [H]owever,

the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *Id.* at 1741 (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

If the Examiner’s burden is met, the burden then shifts to the Appellant to overcome the *prima facie* case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. *See In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

Claims 1-10

Regarding independent representative claim 1,⁴ the Examiner’s rejection essentially finds that Mayor discloses all the features recited in claim 1, except for “the claimed structure of the device being all contained in a singular housing, mounted through the side wall of a container with the indicator located on the outside of the container and the sensor located on the interior end of the housing inside the container” (Ans. 5). The Examiner cites Alton to teach these missing limitations. In view of Alton’s teachings, the Examiner concludes that it would have been obvious to one of ordinary skill in the art at the time of the invention to consolidate the components (e.g., sensor, indicator, and central processing unit) disclosed by Mayor into one housing mounted through the container in order to reduce installation costs (Ans. 3-5). Appellant argues neither reference discloses or teaches: (1) a housing with two ends, the first end being disposed within the container

⁴ Appellant argues claims 1-10 as a group (App. Br. 4-5). Accordingly, we select claim 1 as representative. *See* 37 C.F.R. § 41.37(c)(1)(vii).

and another end disposed outside the container; (2) an external status indicator having two conditions, one visually indicating a secure status and another visually indicating a breach status; and (3) a security system that provides a visual signal when the conditions within the container are within the recited parameters (App. Br. 4-5).

The issue before us is whether the combination of Mayor and Alton discloses or teaches the limitations: (1) a housing having first and second ends, the first end being disposed within the container and the second end being disposed outside the container; (2) an external status indicator for signalling current security status of the container having a first condition visually signalling a secured status within the container and a second condition visually signalling detection of a breach; and (3) a security system providing a first visual signal on the exterior of the container when the conditions within the container are within established parameters. For the following reasons, we find that the combination does.

Appellant argues that neither Mayor nor Alton discloses or teaches the recitation “a housing having first and second ends . . . said first end being disposed within the container, and said second end being disposed outside the container” in claim 1 (App. Br. 5). The Examiner acknowledges that Mayor does not disclose the housing having a second end being disposed outside the container (Ans. 5). Contrary to Appellant’s assertion, however, Alton does teach a housing having a first end disposed within a container and a second end disposed outside the container as recited in claim 1. Elements 18, 28 and 31 of Alton are interconnected to form a housing 10 that includes a first end (around 28 and 31) within the container and a second end (around 18) outside the container (Alton, col. 3, ll. 3-26; Figs. 1

and 3). Similar to Mayor, the device of Alton can also be mounted to a truck or trailer (Alton, col. 1, ll. 41-46). An object of this arrangement is to provide a self-contained and dust tight monitoring unit (Alton, col. 1, ll. 47-48 and 55-61). When combining Alton's teachings with Mayor, the resulting security system would therefore include a housing having a first end disposed within the container and the second end being disposed outside the container in order to provide a self-contained and dust tight monitoring unit. Moreover, the self-contained security system taught by Alton improves the monitoring device of Mayor by eliminating dangling wires or cables within the container or trailer (Mayor, col. 4, ll. 28-36). Thus, a person skilled in the art would clearly recognize that the teachings of Alton would improve the Mayor system in the same way to make them self-contained and free from dust and wires. *KSR*, 127 S.Ct. at 1740.

Appellant further alleges that Alton only teaches a housing disposed outside the container as claimed (App. Br. 4-5). This assertion is based on the disclosure of Alton describing element 18 as the housing and using different terminology to describe elements 28 and 31. We find this argument unpersuasive. First, claim 1 does not limit the housing to single component. Second, the Specification does not specially define the term, housing. Moreover, the Specification and Supplemental Appeal Brief also describe the housing comprising numerous components integrated together, including various computer hardware and a power supply (Spec. 6:20-21) and the lock collar (Supp. App. Br. 3:2-3). Alton similarly describes the elements 18, 28 and 31 as interconnected and combined to form an enclosure or a self-contained monitoring unit 10 (Alton, col. 1, l. 47 – col. 2, l. 19 and col. 3, ll. 3-38; Figs. 1 and 3). We, therefore, find that Alton teaches a

housing for a security system having both a first end (around 28, 31) disposed within the container and a second end (around 18) of the housing disposed outside the container as recited in claim 1.

Appellant also contends that neither Mayor nor Alton discloses an external status indicator for signalling current security status of the container with a first condition visually signalling a secured status within the container. In particular, Appellant argues that inactivity or no signal from an external status indicator does not satisfy the recitation to “an external status indicator . . . having a first condition visually signalling a secured status within said container” in claim 1 (App. Br. 4-5). We disagree.

As broadly as recited, the scope of the claim does not preclude inactivity or no signal from the external indicator to be the first condition that visually signals a secured status within the container. To analogize, a typical fire alarm flashes or strobos when its associated sensor detects smoke or heat. When the light is not flashing, occupants would reasonably understand that the alarm is indicating visually a safe, fire-free, and secured status within a room. We, therefore, find the Examiner’s position that the external indicator in Mayor discloses no signal or a first visually-signalling condition when the status within the container is secured (Ans. 4, 15) reasonable. Appellant additionally disputes that the references disclose or teach a security system providing a first visual signal on the exterior of the container when the conditions within the container are within the parameters because Appellant takes the position that inactivity or no signal from an indicator is not a first condition visually signalling a secured status (App. Br. 5). As stated above, we find that no signal from the indicator is a first condition visually signalling a secured status and, thus, find that Mayor

discloses a security system providing a first visual signal on the exterior of the container when the conditions within the container are within the parameters as recited in claim 1.

Appellant further contends that the lack of signal cannot meet the claimed first condition because “[b]y signalling nothing, it is not known if the device is on, in default or if, in fact, no breach has occurred” (App. Br. 5). We are not persuaded by this argument. First, nothing in the claim precludes no signal at all as corresponding to the indicator’s first condition as claimed, namely visually signalling a secured and operating status within the container. Second, a similar argument could be made with regard to Appellant’s device. That is, the green light in the Specification used to signal a first secured condition (Spec. 8:8-9) could also malfunction and stay green when defective. Thus, the green light of Appellant’s invention may also not indicate whether the device is in default or in a secured state.

For the foregoing reasons, Appellant has not shown error in the Examiner’s obviousness rejection of representative independent claim 1 based on the collective teachings of Mayor and Alton. Accordingly, we will sustain the Examiner’s rejection of claim 1 and claims 2-10 which fall with claim 1.

Claims 11-16

Independent representative claim 11⁵ recites a sensor device for monitoring conditions within the inside of a container having a housing for mounting through the container, a sensor dome with a sensor within the

⁵ Appellant argues claims 11-16 as a group (App. Br. 6). Accordingly, we select claim 11 as representative. *See* 37 C.F.R. § 41.37(c)(1)(vii).

housing and positioned within a container, and an external status indicator positioned within the housing on an exterior of the container, whereby the indicator provides a visual signal of the secure or breached status of the container on the exterior of the container. The Examiner's rejection essentially finds that Mayor discloses all the features recited in claim 11, except for "the claimed structure of the device being all contained in a singular housing, mounted through the side wall of a container with the indicator located on the outside of the container and the sensor located on the interior end of the housing inside the container" (Ans. 9). The Examiner cites Alton to teach these missing limitations. In view of Alton's teachings, the Examiner concludes that it would have been obvious to one of ordinary skill in the art at the time of the invention to consolidate the components (e.g., sensor dome and indicator) disclosed by Mayor into one housing mounted through the container in order to reduce installation costs (Ans. 8-9).

Appellant argues that no reference cited in the rejection discloses "a housing mounted through a wall having a first end within the container and a second end outside the container with each end having one of a sensor or indictor [sic] therein" (App. Br. 6). We do not find the limitations to a housing having a first and second end in claim 11 and, therefore, do not find the language commensurate with the scope of the claim. To the extent that Appellant disputes that the cited references disclose a sensor within the housing and positioned within the container and an external indicator positioned within the housing and exterior to the container, our previous discussion pertaining to the disclosure of Alton and how Alton teaches these

limitations applies equally here. We, therefore, incorporate that discussion by reference.

Appellant also repeats the argument that the references cited in the rejection disclose only a breached status and fail to disclose an external status indicator having a first condition signalling a secured status (App. Br. 6). Our previous discussion addressing the limitation of the first condition signalling a secured status with regards to claim 1 applies equally here. We, therefore, incorporate that discussion by reference.

For the foregoing reasons, Appellant has not shown error in the Examiner's determination of obviousness of representative independent claim 11 based on the collective teachings of Mayor and Alton. Accordingly, we will sustain the Examiner's rejection of claim 11 and claims 12-16 which fall with claim 11.

Claims 17-22

Independent representative claim 17⁶ recites a method of monitoring a shipping container including providing a housing with exterior and interior monitors, positioning the housing so that the interior monitor is positioned within the interior of a container and the exterior monitor is positioned outside the container, providing a central processing unit within the housing, providing the exterior monitor with a plurality of elements, and activating selected elements in response to signals from the central processing unit when the condition within the container is secure or breached. The Examiner's rejection essentially finds that Mayor discloses all the features

⁶ Appellant argues claims 17-22 as a group (App. Br. 6-7). Accordingly, we select claim 17 as representative. *See* 37 C.F.R. § 41.37(c)(1)(vii).

recited in claim 17, except for the steps of providing a housing with an exterior monitor positioned outside the container, providing the exterior monitor with a plurality of signalling elements, and activating selected elements in response to a secure signal from said central processing unit. The Examiner cites Alton to teach the missing limitations. In view of Alton's teachings, the Examiner concludes that it would have been obvious to one of ordinary skill in the art at the time of the invention to consolidate the components disclosed by Mayor into a single housing mounted through the container in order to reduce installation costs. Additionally, the Examiner finds that it is well known to use a plurality of signal elements (i.e., lights of different colors) for signalling breached and secured conditions (Ans. 11-13).

Appellant argues that no reference discloses the step of providing the exterior monitor with a plurality of signal elements and activating selected elements in response to secure signals from the central processing unit and other elements in response to breached signals. In particular, Appellant contends that Mayor and Alton fail to teach activating separate signalling elements in response to one of secure and breached signals (App. Br. 7). The Examiner acknowledges neither Mayor nor Alton discloses this feature (Ans. 12) but relies on the rationale that such a modification of Mayor from one signal element to a plurality of signal elements of differently colored lights to indicate to the user different conditions is well known in the art (Ans. 12, 16).

35 U.S.C. § 103 states “[a] patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the

time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” We are also reminded with regards to the question of obviousness that “the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claims, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR*, 127 S. Ct. at 1741. Factors other than those disclosed in the prior art, such as the understanding, knowledge and common sense of those of ordinary skill in the art, may demonstrate “why some combinations would have been obvious where others would not.” *Leapfrog Enters., Inc. v. Fisher Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007); *see also KSR*, 127 S. Ct. at 1739.

We find that using a plurality of signalling elements and activating different signalling elements in response to secure or breached signals are within the understanding and knowledge of those skilled in the art. The use of a light on an electrical device to indicate the device has been powered on and is active is prevalent and well known. Such examples include power strips, monitors, and printers, just to name a few. Thus, when applying this well-known signalling element to the Mayor device, its security system would include an additional light to indicate the device is powered on and active. Furthermore, in the context of the Mayor device, such an activated light would also represent that the device is in a secure status, as the sensors 116, 122, 119, and 146 would not be triggered. On the other hand, a separate strobe light, as discussed in the context of Mayor (Mayor, col. 6, ll. 30-40), would be activated in response to signals from the central processing unit to indicate a breached status. There is, therefore, an apparent reason to combine the teachings of Mayor with knowledge of the ordinary artisan in a

fashion recited by claim 17 to yield the predictable result of providing an exterior monitor with a plurality of signalling elements and activating selected elements in response to a secure or breached condition as recited in claim 17. *KSR*, 127 S.Ct. at 1740.

Appellant further disputes that no cited reference discloses providing a central processing unit that receives signals from an interior monitor and indicating a second and breached condition (App. Br. 7). We disagree. Mayor discloses in Figures 1 through 3 a central processing unit (module 110) that receives signals from an interior monitor (e.g., 116, 119, 122 or 146) and indicates a second and breached condition (Mayor, col. 3, ll. 38-54 and col. 4, l. 14-16; Figs. 1-3)

Lastly, Appellant repeats the argument that the cited references do not teach providing a housing that extends through a surface of a container with an exterior monitor positioned outside a container and an interior monitor positioned inside the container (App. Br. 6-7). Our previous discussion pertaining to the disclosure of Alton and how it teaches a housing that extends through a container such that a first end is disposed inside the container and a second end is disposed exterior to the container applies equally here. We, therefore, incorporate that discussion by reference. Additionally, as Alton teaches such an arrangement for the housing, Alton also teaches a sensor or an interior monitor (40) positioned inside the container and an indicator or second monitor (41) positioned outside the container (Alton, col. 3, ll. 26-38; Figs. 1, 5, and 6).

For the foregoing reasons, Appellant has not shown error in the Examiner's determination of obviousness of representative independent claim 17 based on the collective teachings of Mayor and Alton.

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Accordingly, we will sustain the Examiner's rejection of claim 17 and claims 18-22 which fall with claim 17.

DECISION

The decision of the Examiner to reject claims 1-22 is affirmed.

No period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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